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Notice of Allowability

Application No.

10/601,665

Applicant(s)

WANG ET AL.

Examiner

Chirag G. Shah

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 6/24/03.
2. ☒ The allowed claim(s) is/are 1-16.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.


CHIRAG G. SHAH
PRIMARY PATENT EXAMINER

Attachment(s)

- | | |
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| <ol style="list-style-type: none"> 1. <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) 3. <input type="checkbox"/> Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____ 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit of Biological Material | <ol style="list-style-type: none"> 5. <input type="checkbox"/> Notice of Informal Patent Application 6. <input checked="" type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____ 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance 9. <input type="checkbox"/> Other _____ |
|--|--|

Examiner's Amendment

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Mar on 3/16/07.

The application has been amended as follows:

Claim 1, line 22, "MID" has been deleted and replaced with "Merge ID (MID)".

Claim 1, line 22, "IMSI" has been deleted and replaced with "International Mobile Subscriber Identifier (IMSI)".

Claim 1, line 23, "NSAPI" has been deleted and replaced with "Network Layer Service Subscriber Access Point Identifier (NSAPI)".

Claim 4, line 13, "ILM" has been deleted and replaced with "Incoming Label Mapping (ILM)".

Claim 4, line 17, "FTN" has been deleted and replaced with "FEC to Next Hop Label Forwarding Entry (FTN)".

Claim 15, line 3, "MID" has been deleted and replaced with "Merge ID (MID)".

Claim 15, line 3, "IMSI" has been deleted and replaced with "International Mobile Subscriber Identifier (IMSI)".

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Claim 15, line 3, "NSAPI" has been deleted and replaced with "Network Layer Service Subscriber Access Point Identifier (NSAPI)".

Claim 15, line 4, "FTN" has been deleted and replaced with FEC to Next Hop Label Forwarding Entry (FTN)".

Reasons For Allowance

2. The following is an examiner's statement of reasons for allowance:

Regarding claim 1, Prior Art fails to disclose applying MPLS network to support QoS in GPRS comprising the steps of establishing level 1 LSPs on-demand from a corresponding node (CN) to a mobile station (MS), wherein the SGSN establishes a first mapping table for recording relation between MID label and IMSI and NSAPI for MSs when the level 1 LSP is established, and the SGSN accordingly recognizes and locates the MS and forwarding a packet between the CN and the MS according to the level 1 LSP, wherein when the packet is forwarded to the SGSN, the SGSN finds corresponding IMSI and NSAPI from the first mapping table with reference to the MID label for addressing the MS's location in combination with other limitation set forth in the respective claim.

Regarding claim 13, Prior Art fails to disclose applying MPLS network to support QoS in GPRS comprising wherein level 2 LSP connections with reserved bandwidth are pre-configured respectively between Gateway GPRS Support Node (GGSN) and each Service GPRS Support Node (SGSN), and between two SGSNs, thereby forming level 2 LSP tunnels with multiple fixed paths, and level 1 LSP from the corresponding node (CN) to a mobile station (MS) is

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established on-demand, so that the SGSNs can recognize and locate corresponding MSs in combination with other limitation set forth in the respective claim.

Conclusion

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chirag G. Shah whose telephone number is 571-272-3144. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached on 571-272-3134. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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cgs

March 16, 2007



Chirag G. Shah
Primary Examiner, 2600

CHIRAG G. SHAH
PRIMARY PATENT EXAMINER